

ASIAN DEVELOPMENT BANK

TAR:MON 36240

TECHNICAL ASSISTANCE

TO

MONGOLIA

FOR

CIVIL AVIATION POLICY DEVELOPMENT

October 2002

CURRENCY EQUIVALENTS

(as of 14 September 2002)

Currency Unit	–	tugrik (Tug)
Tug1.00	=	\$0.0009
\$1.00	=	Tug1,116

ABBREVIATIONS

ADB	–	Asian Development Bank
EBRD	–	European Bank for Reconstruction and Development
MCAA	–	Mongolia Civil Aviation Authority
MIAT	–	Mongolian Civil Air Transport Company – the Mongolian national airline
MOI	–	Ministry of Infrastructure
TA	–	technical assistance

NOTE

In this report, "\$" refers to US dollars.

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I. INTRODUCTION

1. Mongolia's population centers are connected by very poor roads, the result of extreme seasonal weather patterns, difficult terrain, low population densities, and limited financial resources. Ground travel from provincial centers to the capitol can take up to a week, and in winter can be virtually impossible. In these conditions civil aviation should play a vital role in economic growth by providing fast, reliable connections between population centers for Government, business, tourism, and ordinary citizens.

2. The Asian Development Bank (ADB) has a long history of involvement in civil aviation in Mongolia. In 1993, ADB provided a loan to rehabilitate Ulaanbaatar's international airport¹ and a technical assistance (TA) grant to help establish the Mongolia Civil Aviation Authority (MCAA) as a separate entity from the national airline, the Mongolia Civil Air Transport Company (MIAT), operating under the Ministry of Infrastructure. ADB provided a second loan in 1995 to establish an air navigation system that would permit international overflights, and additional TA to (i) finalize MCAA's accounting systems, (ii) provide legal advice on bilateral agreements for overflights, and (iii) provide further human resource development.² All of these projects have been evaluated as successful, with MCAA now well established, Ulaanbaatar airport managing increasing passenger loads, and international overflights generating substantial revenues for the central budget.

3. Despite the positive impact of these activities, the role of civil aviation in the overall economy remains limited. The sector is dominated by the state, which owns and manages nearly all civil aviation assets and services but does not have the resources for strategic development. In January 2001, the Government issued *Privatization Guidelines for 2001-2004*, which spells out the objectives, general principles, methods, and legal framework for a new privatization program to divest of valuable assets, including MIAT. MCAA subsequently organized an aid agency roundtable to discuss MIAT's privatization in the context of the overall development of civil aviation. Further discussions between aid agencies and the Government led to a consensus that, prior to MIAT privatization, the Government needed to (i) develop a forward-looking policy and regulatory framework for civil aviation that facilitates private sector participation, (ii) prepare a priority investment plan identifying specific areas for public and private investment, and (iii) overhaul MIAT operations and management. The Government requested ADB TA on the policy and regulatory side, while the European Bank for Reconstruction and Development agreed to finance the investment study and a management contract for MIAT. The Country Programming Mission and the Country Strategy and Program Update confirm that the TA is consistent with ADB's goal of promoting private sector development as the key to economic growth in an environment marked by persistent unemployment, slow growth, and poverty. The TA Framework is in Appendix 1.³

¹ ADB. 1993. *Report and Recommendation of the President to the Board of Directors on a Proposed Loan to Mongolia for the Ulaanbaatar Airport Project and Technical Assistance to Mongolia for Institutional Strengthening of the Civil Aviation Sector and National Air Safety Master Plan*. Manila.

² ADB. 1995. *Report and Recommendation of the President to the Board of Directors on a Proposed Loan to Mongolia for the National Air Navigation Development Project and Technical Assistance to Mongolia for Institutional Strengthening of the Civil Aviation Sector*. Manila.

³ The TA first appeared in *ADB Business Opportunities* (internet version) on 25 June 2002.

II. ISSUES

4. Mongolia has traditionally relied on mineral resources, cashmere, and other animal products for economic growth. Overall growth plummeted during a decade of painful economic transition as financial support from the former Soviet Union was withdrawn. Commodity exports also remain vulnerable to domestic shocks, as amply illustrated by recent droughts and severe winters, and to exogenous shocks, including the Asian economic crisis and the 2001 terrorist attacks—both of which had a negative impact on prices for copper and cashmere, two of Mongolia's most important exports. With its vast natural beauty and political stability, tourism offers an encouraging prospect for economic diversification. Tourism arrivals are increasing rapidly despite the events of 11 September 2001, and are projected to increase steadily for the foreseeable future. Long-term growth depends on the availability of reliable safe domestic air transport. Apart from tourism, air transport also plays an important domestic socioeconomic function in Mongolia. Although ADB is investing in the improvement of a north-south road corridor, for most of Mongolia the cost of developing and maintaining a surface transport network is prohibitive, and air transport offers the best and sometimes only quick link between rural areas and Ulaanbaatar.

5. As demand for air transport increases in Mongolia, so too does the burden on MCAA and the Government to service the sector. But with the economy still in transition and recovering from economic shocks, the Government does not have the resources to shoulder this burden alone. Although overflights now generate substantial revenues, to date the mechanism for channeling a portion of these funds back into civil aviation development has not been clearly defined, and revenues are often channeled to other sectors depending on short-term budget requirements. Lack of investment in the air transport sector poses a constraint to tourism development, with limited domestic and international air transport options and flight schedules, public perception of poor air safety, and an underdeveloped domestic airport system. Apart from a few small charter operators, most domestic routes and travelers are served by MIAT's aging fleet of Antonov-24 and Antonov-26 airplanes, which must be retired by 2005. MIAT does not have the financial capacity to replace the domestic fleet, partly because it is forced to serve low-volume routes and operate all routes at a loss due to restrictions on tariffs. All but four domestic airports have limited passenger handling capacity, feature gravel or grass airstrips without lighting systems, and have primitive air traffic services.

6. The future of MIAT is inextricably linked with more general issues in civil aviation, including competition policy and the entrance of private operators, tariffs and subsidy policy, basic social requirements to serve remote provinces, domestic airport infrastructure, domestic air navigation/air traffic services infrastructure, and sources of financing for development including use of overflight revenues. In all of these areas there is scope for clarifying or developing government policies. Although MCAA has developed a set of investment priorities for civil aviation, these do not derive from a comprehensive strategy for the sector based on careful demand, financial, and economic analyses. Until the Government formulates a clear long-term vision for the sector and enunciates a strategy for its development, including the potential role of the private sector in financing, managing, or owning air transport assets, it will be difficult to attract investment in civil aviation, either for MIAT, for new air transport providers, or for infrastructure.

III. THE TECHNICAL ASSISTANCE

A. Purpose and Output

7. The overall sector goal is the development of civil aviation in Mongolia as a catalyst for economic growth through greater private sector participation. The immediate objective of this advisory TA is to assist the Government to develop a long-term vision for the sector and its role in the economy, and forward-looking aviation sector policies and a regulatory framework that will support private sector participation in the future in air transport services and infrastructure. Key outputs will include (i) assessment of the potential for private participation in civil aviation, including air transport, air traffic services, ground handling, airports and other infrastructure; (ii) draft policy for the development of, and private sector participation in, civil aviation; (iii) strategic reform plan for addressing constraints to sector development, including capacity building, legal and regulatory reform, tariff and subsidy policy, and competition policy; and (iv) a series of workshops to discuss project findings and proposals and to refine the draft policy and strategic plan.

B. Methodology and Key Activities

8. **Part A–Industry Analysis.** Under this component, the TA will assess the market demand for domestic air transport and the cost structure between Ulaanbaatar and regional airports to estimate the sustainable size of the domestic air transport industry over a 10-year planning horizon and the potential for additional private operators. On this basis the TA will assist MCAA to develop scenarios for the evolution of the domestic and international fleet and route network. Similar analysis will be completed for international flights to and from Mongolia.

9. **Part B–Aviation Infrastructure and Services.** This component will (i) assess the economic potential for private participation in the operation of air navigation and air traffic services, and in domestic airfield services such as fueling, aircraft maintenance, ground handling, and ticketing services; (ii) review existing regulatory and safety requirements (which were developed specifically to facilitate MIAT operations) for their suitability for private entrants; (iii) assess MCAA's role and capacity for regulating private operators; (iv) identify legal constraints to foreign and domestic investment in the sector; (v) develop draft policies for the planning, financing, operation, management, and ownership of infrastructure and services that spell out the appropriate role of Government and the private sector; and (vi) develop a strategic plan for addressing regulatory, legal, and other constraints.

10. **Part C–Air Transport.** This component will identify constraints to private participation in domestic air transport, including the legal and regulatory environment, tariff and subsidy policy, need for and potential structure of an independent economic regulatory body, social objectives, and minimum service requirements for domestic routes. MCAA's role and capacity to ensure safety and provide oversight will be reviewed, and on the basis of this review specific recommendations on capacity building and human resource development will be prepared. On the international side, the TA will (i) evaluate the potential for expanding scheduled and charter passenger and freight services to and from Mongolia; (ii) review the potential impact of existing policies on competition, tariffs, and capacity entitlements; and (iii) advise the Government on bilateral issues such as fifth freedom rights,⁴ and open sky agreements. The analyses conducted in Parts A through C will form the basis of draft policies to govern the development of

⁴ Fifth freedom rights refers to the right of an airline of one country to carry traffic between two other countries providing the flight originates or terminates in its own country.

domestic and international air transport and services, and a strategic plan for addressing regulatory, legal, human, and financial resource constraints.

C. Cost and Financing

11. The total cost of the TA is estimated to be \$353,000 equivalent, of which \$267,000 is the foreign exchange cost and \$86,000 equivalent is the local currency cost. The Government has requested the Bank to finance \$300,000 equivalent, covering the entire foreign exchange cost and \$33,000 equivalent of the local currency cost. The TA will be financed by ADB on a grant basis from ADB's TA funding program. The Government will finance the balance of the local currency cost of \$53,000 equivalent through provision of office space and support, information, data, security, counterpart staff salaries, and contingencies. The cost estimates and financing plan are included in Appendix 2.

D. Implementation Arrangements

12. MCAA will be the Executing Agency for the TA, and the director, Policy and Foreign Relations Department will serve as the project director, overseeing all aspects of implementation. MCAA will lead the policy development process by serving as the focal point for all stakeholders with responsibility for disseminating draft policy documents, hosting public hearings, and finalizing the civil aviation policy and development strategy. Key stakeholders include the State Property Committee, Ministry of Infrastructure, consumer groups, potential investors, private air transport operators, and state employees in the sector. TA activities will need to be coordinated closely with parallel activities financed by the European Bank for Reconstruction and Development. The TA will be implemented over a period of about 7 months, from November 2002 to May 2003.

13. The TA will require the services of international and domestic experts (for a total of 10 months and 8 months, respectively) in the fields of civil aviation policy, civil aviation legal and regulatory arrangements, air transport economics, private sector development, and infrastructure development. The team of consultants, from an international consulting firm in association with domestic consultants, will be engaged using ADB's quality and cost-based selection procedures and according to ADB's *Guidelines on the Use of Consultants* and other arrangements satisfactory to ADB for the engagement of domestic consultants. The outline terms of reference are included in Appendix 3.

IV. THE PRESIDENT'S DECISION

14. The President, acting under the authority delegated by the Board, has approved the provision of technical assistance not exceeding the equivalent of \$300,000 on a grant basis to the Government of Mongolia for Civil Aviation Policy Development, and hereby reports this action to the Board.

TECHNICAL ASSISTANCE FRAMEWORK

Design Summary	Performance Indicators/Targets	Monitoring Mechanisms	Assumptions/Risks
<p>Sector Goal Increased contribution of civil aviation to economic growth</p>	<p>Civil aviation sector growth in terms of domestic and international passenger and freight loads, reliability and frequency of coverage, and private sector investment</p>	<p>Passenger and freight statistics; tourism arrivals; domestic and foreign investment statistics</p>	<p>Air transport preferable to land transport for certain segment of the passenger and freight market</p> <p>Private investment in some aspects of the sector is financially viable</p>
<p>Purpose/Objective Assist the Government to develop forward-looking aviation sector policies and a regulatory framework that will support private participation in air transport services and infrastructure</p>	<p>Comprehensive draft aviation sector policy that identifies the potential role of the private sector and includes an implementation plan to address constraints to sector development</p>	<p>Consultants' progress reports</p> <p>Review missions</p> <p>Tripartite meetings</p>	<p>Government recognition of need for comprehensive policy governing development of the sector prior to formulating investment plans</p> <p>Government interest in greater private sector involvement in the sector, and sharing of management of sector</p>
<p>Outputs/Components Industry analysis</p> <p>Policy formulation for development of aviation infrastructure and services</p> <p>Policy formulation for development of domestic and international air transport</p> <p>Strategic plan for implementing the policy through regulatory, legal and administrative reform</p>	<p>Timely submission of draft reports covering all items in the terms of reference</p> <p>Stakeholder workshops to review and refine policy proposals</p>	<p>Consultants' progress reports</p> <p>Review missions</p> <p>Policy dialogue with the Government</p> <p>Consultants' contract milestones</p> <p>Consultants' progress reports</p>	<p>Cooperation of Mongolian Civil Aviation Authority and national airline (MIAT), especially timely provision of data and counterpart support</p> <p>Effective coordination with other aid agencies in the sector, particularly the European Bank for Reconstruction and Development</p>
<p>Inputs</p> <p><u>ADB contribution (total):</u></p> <p>Consulting services Workshops, reporting Other Contingencies</p> <p><u>Government contribution:</u></p>	<p><u>\$300,000</u></p> <p>\$235,200 \$9,000 \$26,000 \$29,800</p> <p><u>\$53,000</u></p>	<p>Disbursement data</p> <p>Consultants' progress reports</p> <p>Consultants' contract invoices</p>	<p>Timely recruitment of consultants</p> <p>Effective counterpart support</p>

COST ESTIMATES AND FINANCING PLAN
(\$ '000)

Item	Foreign Exchange	Local Currency	Total Cost
A. Asian Development Bank Financing ^a			
1. Consultants			
a. Remuneration and Per Diem			
i. International Consultants	220.0	0.0	220.0
ii. Local Consultants	0.0	15.2	15.2
b. International Travel	16.0	0.0	16.0
c. Local Travel			
i. Vehicle Rental and Running Costs	2.0	1.0	3.0
ii. Domestic Air Travel	2.0	0.0	2.0
d. Reports and Communications	1.0	2.0	3.0
2. Stakeholder Workshops	2.0	4.0	6.0
3. Miscellaneous Administration, Translation	0.0	5.0	5.0
4. Contingencies	24.0	5.8	29.8
Subtotal (A)	267.0	33.0	300.0
B. Government Financing			
1. Office Accommodation, Transport, Logistics	0.0	25.0	25.0
2. Remuneration and Per Diem of Counterpart Staff	0.0	10.0	10.0
3. Information, Data, Security	0.0	10.0	10.0
4. Contingencies	0.0	8.0	8.0
Subtotal (B)	0.0	53.0	53.0
Total	267.0	86.0	353.0

^a Financed from the ADB-funded TA Program.
Source: Asian Development Bank estimates

OUTLINE TERMS OF REFERENCE FOR CONSULTANTS

1. The overall purpose of the technical assistance (TA) is to assist the Government to develop a forward-looking policy environment to support the growth, sophistication, and safety of civil aviation in Mongolia so that the sector may better serve the social and economic needs of the economy. Such a policy needs to address (i) constraints to sector development; (ii) economic and regulatory arrangements; (iii) division of regulatory and provider roles; and (iv) ownership and management structures, including corporatization, commercialization, and eventual privatization where appropriate for domestic and international air carriers, airports, domestic air traffic services, aviation support services such as maintenance, ground handling services, catering, and training for pilots, cabin crew, maintenance engineering staff, and other aviation personnel.

2. In each set of tasks described here, the TA will consider the appropriate roles of government agencies such as the Ministry of Infrastructure (MOI), Mongolia Civil Aviation Authority (MCAA), Parliament, Ministry of Industry and Trade, and other bodies in the technical and economic regulation of the sector.

3. The TA will require 10 person-months of international consultants and 8 person-months of domestic consultants, working as a team over a period of roughly 7 months. The team will consist of the following: (i) civil aviation policy specialist/team leader (international, 5 person-months); (ii) air transport economist (international, 2 person-months); (iii) civil aviation legal and regulatory expert (international, 2 person-months); (iv) private sector development specialist (international, 1 person-month); (v) air transport specialist (domestic, 4 person-months); and (vi) infrastructure specialist (domestic, 4 person-months). The team will work together, under the guidance of the team leader and the supervision of MCAA and MOI, to complete the tasks described here.

A. Part A—Industry Analysis

4. Policy development for the aviation sector first requires a general understanding of passenger and freight demand within Mongolia and between Mongolia and other countries, and how this demand is expected to evolve over time. The consultants will assist MCAA to do the following:

- (i) Make general aviation sector projections through estimates of market demand for domestic air transport (passenger and freight) and cost structure between Ulaanbaatar and existing airports over a 10-year planning horizon, and price and income elasticity of demand for national and international passengers. Identify potentially profitable domestic routes. Where possible use disaggregated (by type of passenger, such as tourism, business, personal, Government) and pair-wise demand models, and the findings of existing tourism studies and plans.
- (ii) On the basis of (i), estimate the sustainable size of the domestic air transport industry over the planning horizon and potential for additional private operators.
- (iii) Develop scenarios for the future evolution of the domestic fleet, route network, and size of the industry, unconstrained by airport characteristics.

- (iv) Analyze each scenario against agreed upon policy objectives and development criteria, and develop a recommended strategic approach.

B. Part B—Aviation Infrastructure and Services

5. MCAA has drafted a preliminary plan for upgrading seven domestic airfields with hard surface and lighting, and will be developing with European Bank for Reconstruction and Development (EBRD) assistance a long-term investment plan for domestic airports. Future investments, including selection of priority airports, should be driven by an overall policy for the sector that spells out needs based on sound demand forecasts and achievable industry structure (including an economically sound airline fleet structure), and identifies sources of financing. Although currently these assets are owned and maintained by the Government, future development may be of interest to the private sector, particularly for the higher volume destinations. As an intermediate step, it might make sense to corporatize some assets such as airports. The main task of the consultants is to assess the potential for and constraints to private sector participation in the maintenance, development, operation, and partial or full ownership of domestic airports and airfields as part of an overall policy for the development of domestic aviation infrastructure and services. Specifically the consultants will assist the Government in doing the following:

- (i) Based on recent passenger statistics and demand forecasts, the above developed sector strategy, as well as the priority investment list for domestic airports developed under the forthcoming EBRD study, identify candidate airports with the potential to attract private investors in operations. Based on existing airport runway infrastructure make recommendations on appropriate aircraft and analyze costs and benefits of upgrading to surfaced runways to accommodate different types of aircraft.
- (ii) In conjunction with proposed reforms of Mongolia Civil Air Transport Company (MIAT) and unbundling of some of its ground services, assess the economic potential for private participation in the operation of domestic airfield services such as fueling, aircraft maintenance, ground handling, ticketing services, and catering at individual airports or through concessions for groups of airports.
- (iii) Assess the economic potential for private investment to upgrade airport and airfield facilities, including air navigation and air traffic services, through joint public-private ventures, build-operate-transfer arrangements, and other mechanisms, either for individual airports or through concessions for groups of airports. Assess the potential for domestic and international airline operators to invest in ground services.
- (iv) Assess the potential for and desirability of devolution of MCAA management of airports to provincial governments.
- (v) Review various financial mechanisms for private sector participation in domestic airports and services—ranging from contracting out management, to leasing or outright private ownership—commenting on the advantages and disadvantages of each, and their suitability in the Mongolian context. Investigate the desirability of corporatizing the management of airports and services as an intervening step toward private participation.

- (vi) As most regulatory measures were developed specifically to facilitate MIAT operations, review the suitability of regulatory/safety requirements for private participation in airports and airfield services, and MCAA's role and capacity for regulating private operators in these areas.
- (vii) In conjunction with (iv) and (v), review the current legal and regulatory framework for foreign and domestic investment and its suitability for private investment in and/or operation of domestic air transport assets and services.
- (viii) On the basis of (i) through (vi), draft a policy on the development of domestic airports, other aviation infrastructure, and services that spells out the approach to planning, development, financing, operation, and ownership; identifies the appropriate role of the Government and the private sector; and includes a strategic plan for addressing regulatory, legal, and other constraints.

C. Part C–Air Transport

6. Currently the vast majority of domestic air passengers and (limited) freight are carried by MIAT. Whether MIAT is sold in the future “as is” or first split between domestic and international operations, the Government needs to outline its development goals for domestic air transport and clarify a number of issues that will determine future private interest and investment in the sector. On the international front, MCAA needs advice on competition policy, bilateral agreements, and policies to promote air freight consolidation and transshipment. To assist in the formation of a policy on domestic and international air transport development, the consultants will assist MCAA in doing the following:

- (i) On the basis of the industry analysis, estimate the sustainable size of the domestic air transport industry over the planning horizon and the potential for additional private operators.
- (ii) Review with the Government its social objectives in civil aviation, and the minimum service requirements on all domestic routes based on these objectives.
- (iii) Review the tariff policy for domestic routes and the constraints of same to private operation of domestic air transport; make recommendations on an appropriate tariff policy that will encourage private operators while meeting social objectives.
- (iv) Assess the legal and regulatory environment for foreign and domestic private provision of air transport on domestic routes, and the constraints such as import approvals required for new aircraft, taxes and duties on aircraft, and taxes on fuel; suggest necessary reforms or clarifications of the legal and regulatory environment.
- (v) Assess the safety and oversight requirements for increased private participation in air transport, MCAA's capacity to meet these requirements, and human resource development needs.
- (vi) Evaluate various mechanisms for attracting domestic or foreign investors in air transport to provide domestic scheduled or charter services, for example through the franchising of routes or packages of routes, with minimum service requirements specified, and the possibility of negative bids for unprofitable routes and cross-subsidies from profitable routes.
- (vii) Identify alternative financing mechanisms to subsidize unprofitable routes, for example through an aviation fund that comprises a share of fees from private operators, contributions from overflight revenue, and direct budget transfers.

- (viii) Evaluate the potential for the expansion of international scheduled and short- and long-haul charter services to and from Mongolia; the viability of the entrance of other international carriers; and existing policies on competition, tariffs, and capacity entitlements.
- (ix) Advise MCAA on policy and strategy for international bilateral negotiations, such as maximization of the value of fifth freedom rights, and appropriateness of open sky agreements, and the potential for transshipment arrangements using Ulaanbaatar as a transport/storage hub.
- (x) Evaluate the potential for increasing international air freight consolidation and transshipment and the constraints thereto.
- (xi) On the basis of (i)–(vii), draft a policy on the development of domestic and international air transport that spells out, inter alia, the approach to tariff policy, social objectives and minimum service requirements, competition policy and method of entry for private operators, safety, and oversight, and includes a strategic plan for addressing regulatory, legal, and other constraints.

D. Consultations

7. All phases of the work described here will require detailed consultations with MCAA, the State Property Committee, MOI, MIAT management, private businesses, other aid agencies assisting the sector, users of civil aviation infrastructure and transport and civil society. In addition, draft policy and strategy documents will require translation into Mongolian, broad circulation, sufficient time for comments, and workshops for open discussion, prior to further work.